

MEMORANDUM OF AGREEMENT
between
STATE OF UTAH, DIVISION OF OIL, GAS AND MINING
and
CYPRUS PLATEAU MINING CORPORATION

The Division of Oil, Gas and Mining shall be referred to as DOGM and Cyprus Plateau Mining Corporation as CPMC, herein, for the balance of this document.

Whereas DOGM and CPMC desire to undertake a cooperative research program designed to study the mechanisms and resultant impacts of subsidence related to mining; this Memorandum of Agreement shall set forth the responsibilities of each party.

It is understood that CPMC requests DOGM to undertake a study to evaluate:

- a) The impacts of subsidence on hydrology, vegetation, and wildlife habitat.
- b) To develop data on the mechanisms contributing to subsidence and caving characteristics.
- c) To evaluate long range impacts of subsidence on the environment.
- d) To evaluate potential damage to and repair of perennial stream beds.
- e) To study and provide input to the criteria currently requiring the sterilization of coal.

DOGM will subcontract the elements of the proposed study to a third party, herein referred to as the subcontractor. The subcontractor may be the U. S. Geological Survey (USGS), or other parties per DOGM's discretion.

Elements of the study are based upon the attached "Scope of Work", and agreed to by the parties. Studies are limited to the "Scope of Work" but may be modified by signed mutual agreement. DOGM and CPMC may all contribute technical support in the form of concepts, experience, and technical personnel to the limits of capability of each.

DOGM and CPMC may contribute project funding in terms of cash or materials, supplies, and labor to the extent individual managements allow. Quarterly meetings shall be held wherein mutual

agreement will be reached with regard for scope of work for the next two quarters. CPMC agrees to contribute cash, approximately \$60,000 for year one of the study, either through direct project funding to DOGM or by direct payment to project contractors to fulfill the requirements relative to this contract. Annual work programs and expenditures shall be agreed upon in the November proceeding the proposed work program. Payments to the subcontractor by DOGM shall be no more frequent than quarterly and shall be from invoices appropriately reflecting the approved scope of work. However, if DOGM and its subcontractor fail to evaluate the data generated by the study, CPMC has full rights to data collected and may engage a consultant of CPMC's choice to evaluate data.

CPMC will allow and assist access into the mine to conduct surveys as long as such surveys do not conflict with MSHA, CPMC safety guidelines, or the mining of coal.

The term of this agreement shall be through December 31, 1992, unless defined otherwise by mutual agreement by the parties. If the subcontractor withdraws from the study, then DOGM will:

- a) within 30 days of the withdrawal review invoiceable project expenditures incurred through the date of withdrawal with CPMC; and
- b) within 45 days of withdrawal by a subcontractor, DOGM and CPMC shall meet to review the work accomplished against the signed Scope of Work, and to mutually agree upon objectives of study and methodology of attainment.

It shall be the responsibility of DOGM to negotiate a consulting services contract with the subcontractor.

DOGM may and is encouraged to invite other regulatory agencies to participate in the cooperative research study at its discretion.

The data and evaluation resulting from this study shall be for open record and, by mutual agreement DOGM, CPMC and public agency subcontractors may produce professional papers from the data.

The term of this agreement shall be through 1992 and constitute the mining of the Wattis Seam under a perennial stream known as the Right Fork of the North Fork of Miller Creek. The study shall include the recovery of reserves of the Third Seam adjacent to the streambed and, as per the scope of the work, is intended to encompass all aspects of subsidence from pre-mining monitoring through channel repair and mitigation and post mining monitoring.

DOGM and CPMC agree that this research study is intended to increase our knowledge of subsidence mechanisms and impacts for the benefit of the regulatory agencies as well as operating companies.

This document shall constitute in full the agreement between DOGM and CPMC.

CYPRUS PLATEAU MINING CORPORATION

Georg C. Trevor
Vice President & General Manager

Date 7-25-89

Robert G. Lauman
Manager of Technical Services

Date 7-25-89

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

Dianne R. Nielson
Dianne R. Nielson, Director

Date 6/30/89

APPROVED AS TO FORM:

Barbara W. Roberts
Assistant Attorney General

Date 7/3/89

Carl H. Roberts
Carl Roberts, Budget & Accounting Officer

Date 7/5/89

Dee C. Hansen
Dee C. Hansen, Executive Director
Department of Natural Resources

Date 8/1/89

Forrest Terry
for Forrest Terry
Department of Finance

Date 8-8-89